

Date: Tuesday, 7/1/2008 2:35:03 PM
User: Kim Johnston

Process Sheet

Customer	CU-DAR001 Dart Helicopters Services		Drawing Name	EXTRUSION "I" BEAM WEB 4"	
Job Number	40196		Part Number	D25003100	
Estimate Number	10155		Drawing Number	D2500 UNDER REVIEW OK Q 08.07.02	
P.O. Number			Project Number	N/A	
This Issue	7/1/2008	S.O. No. :	Drawing Revision	G	
Prsht Rev.	NC		Material		
First Issue	/ /	Type : SKIDTUBES	Due Date	7/30/2008	Qty: 110 Um: Each
Previous Run	33940				
Written By					
Checked & Approved By	<i>10807.01</i>				
Comment	Est: E 02.09.10 Added DSK 066KJ est F 07.07.06 rev G dwg EC				

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
1.0	PG	PURCHASING
<p>Comment: PURCHASING Issue P/O: <i>6671</i> C 08/07/02 110 a) Extrude as per Dwg D2500 b) Material: 6061-T6 (QQ-A-200/8) OR ASIM B221 Q 08.07.02 c) Minimum yield tensile strength = 35 ksi d) Minimum ultimate tensile strength = 38 ksi e) Minimum elongation = 10% f) Order at 100" long g) Caradon Indalex Tool # MS-18867 h) To be packed per DSK 066 i) Pull test to ASTM standard B221 required. j) Material certification is required</p>		
2.0	D25003100P	Ext'n - 'I' Beam Web 4"
<p>Comment: Qty.: 1.0000 Each(s)/Unit Total : 110.0000 Each(s) EXTRUSION "I" BEAM WEB 4"</p>		
3.0	PACKAGING 1	PACKAGING RESOURCE #1
<p>Comment: PACKAGING RESOURCE #1 Receive & Inspect For Transit Damage Ensure material certification is attached <i>AS 08/07/25</i></p>		
4.0	QC6	DIMENSIONAL CHECK
<p>Comment: DIMENSIONAL CHECK Inspect dimensions per Dwg D2500 Check Pull test per Dwg D2500 for compliance page attached. <i>80/07/25 *210 covered</i></p>		

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Tuesday, 7/1/2008 2:35:03 PM
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Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: EXTRUSION 'I' BEAM WEB 4"

Job Number: 40196

Part Number: D25003100

Job Number:



Seq. #: Machine Or Operation:

Description :

Check hardness with Webster tester

5.0 PACKAGING 1

PACKAGING RESOURCE #1



(X209)

(b)

Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: Landing gear skids / Hall 005 ✓ 08/07/28

6.0 QC21

FINAL INSPECTION/W/O RELEASE



08/07/31

Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



MF 08-07-30

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D2500-3-100 PAR #: N/A Fault Category: Prod/Stock Issues NCR: Yes No DQA: Date: 08/07/31
 QA: N/C Closed: Date: 08/07/31

		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
8/7/29	S	During Stocking it was found that 1 Fbeam was damaged. RC	<input checked="" type="checkbox"/>	Scrap and Destroy No Replace Qty <input checked="" type="checkbox"/> X0	M 8-7-29	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

NOTE: Date & initial all entries



DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D2500	REV. G	SHEET 1 OF 3
DATE 07.04.17		TITLE EXTRUSION	SCALE NTS	
A	96.03.19	NEW ISSUE		
B	96.03.24	CHANGE INTERNAL WEB		
C	96.04.26	ADD D2500-3 WEB		
D	96.10.07	ADD MATERIAL PROPERTIES		
E	96.10.24	CHANGE MATERIAL TEMPER		
F	97.09.29	CHANGE MAT. TO 6061-T6		
G	07.04.17	ADD NOTES 3,5,6		

RELEASED
07.06.28

UNDER REVIEW
08.04.02 UP
FOR REV. H

1. MATERIAL: 6061-T6 (QQ-A-200/8)

MINIMUM TENSILE YIELD STRENGTH = 35 KSI
MINIMUM ULTIMATE TENSILE STRENGTH = 38 KSI
MINIMUM ELONGATION = 8%

A SAMPLE FROM EACH BATCH WILL BE PULL TESTED TO
ASTM STANDARD B221 BY AN APPROVED TESTING FACILITY
TO ENSURE THAT THE BATCH MEETS THE ABOVE
MINIMUM MECHANICAL PROPERTIES

2. BREAK ALL SHARP CORNERS 0.010 MAX
3. ALL DIMENSIONS ARE IN INCHES
4. TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE
NOTED.
5. FOR D2500-1 PART NUMBER IS D2500-1-XXX WHERE *XXX COPY*
CUT LENGTH (EX. D2500-1-190 IS 190" LONG)
D2500-1 EXTRUSION MANUFACTURED FROM:
A) BON L DIE # 897015 -> PREFERRED
B) CARADON MIDEAST DIE # PAH-28030
C) CARADON MTL DIE # MH-18868
6. FOR D2500-3, PART NUMBER IS D2500-3-XXX WHERE XXX IS
CUT LENGTH IN INCHES (EX. D2500-3-100 IS 100" LONG)
D2500-3 EXTRUSION MANUFACTURED FROM:
A) CARADON INDALEX DIE # MS-18867

*RETURN TO
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WITHOUT NOTICE
WORK ORDER
NO. 40196*

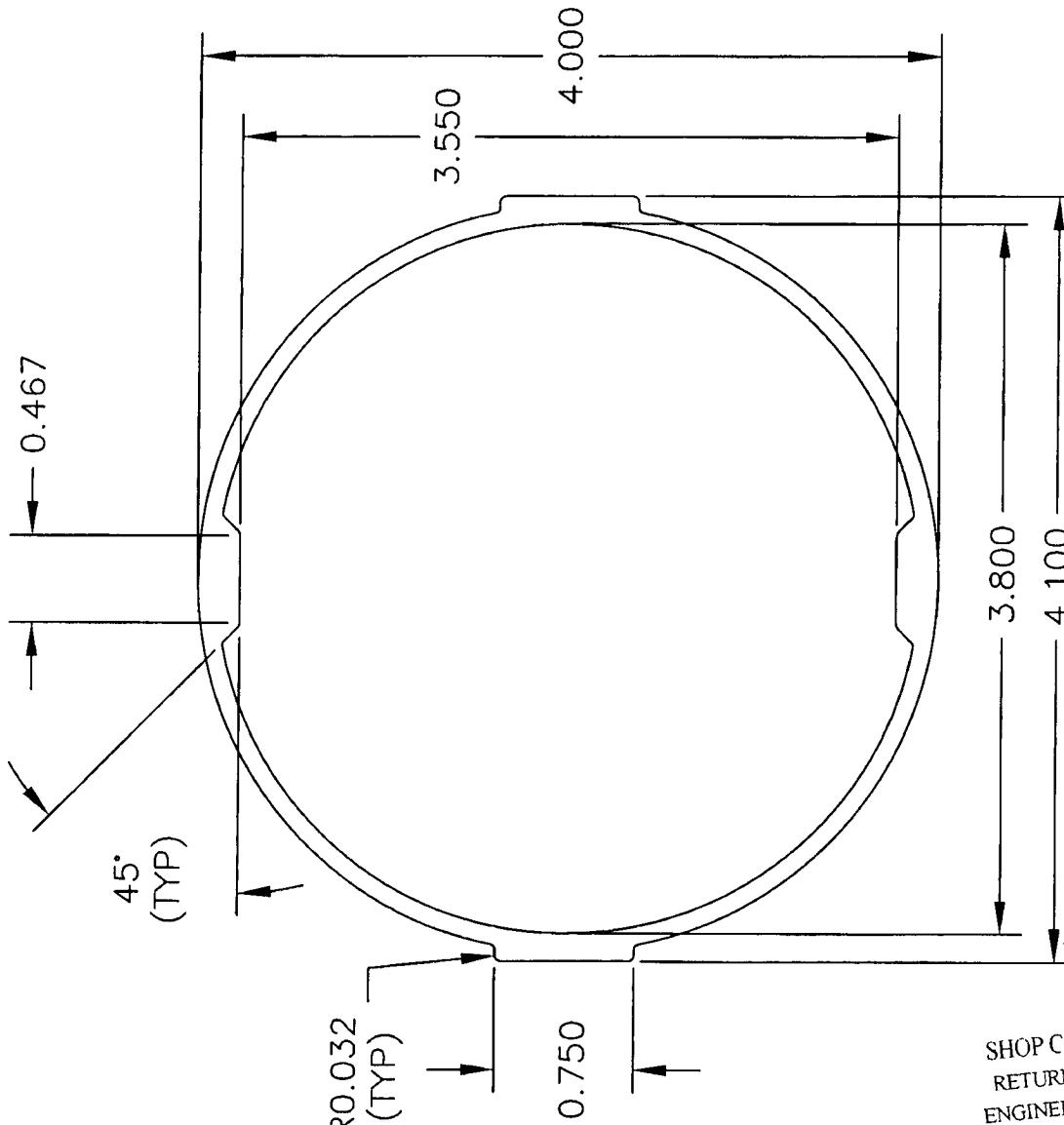
DART

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CHECKED	APPROVED	DRAWING NO. D2500
DATE	07.04.17	TITLE EXTRUSION

REV. G

SHEET 2 OF 3

1:1

RELEASED
*07.06.28***UNDER REVIEW***08.04.02 6'
FOR REV. H***D2500-1**

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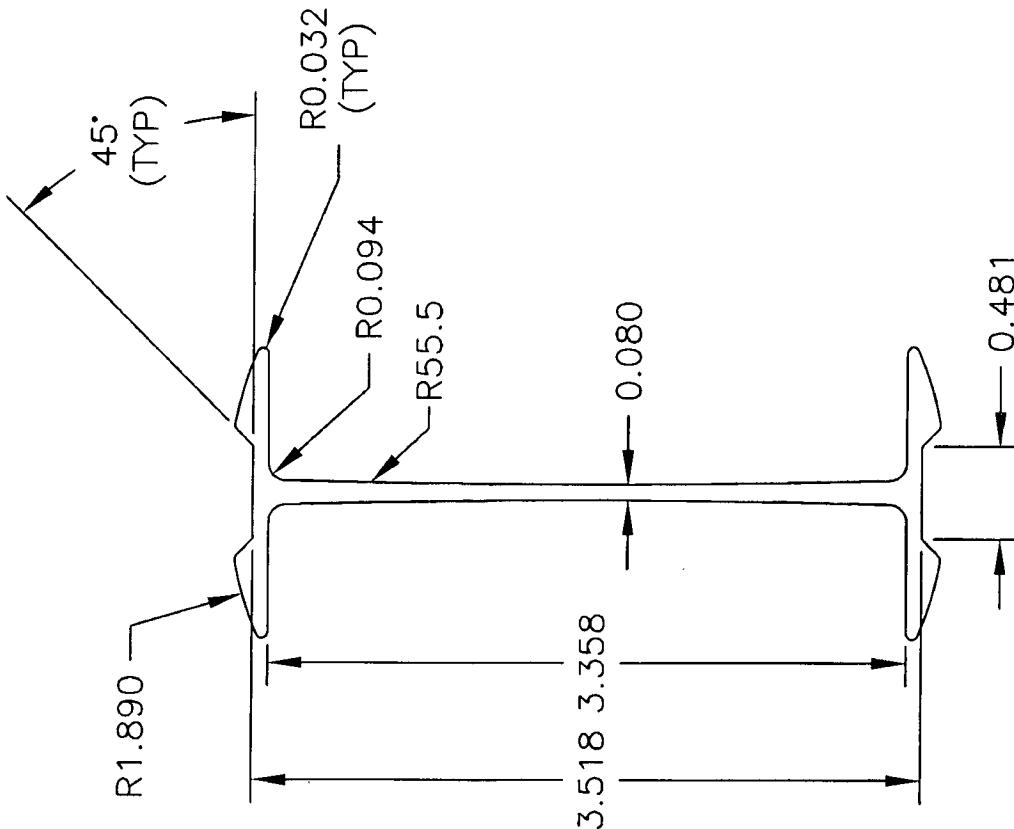
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DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
CHECKED	APPROVED	DRAWING NO. D2500
		REV. G SHEET 3 OF 3
DATE 07.04.17		TITLE EXTRUSION SCALE 1:1

RELEASED
07.06.28 H

UNDER REVIEW
UB.04.02 UP
FOR REV. H



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P/S# : 670126

NOTRE NUMERO DE COMM.
OUR ORDER NO.

80725

DART AEROSPACE LTD
1270 ABERDEEN STREET
HAWKESBURY, ONT

EXPÉDIT / SHIP TO

INDICATIONS SPÉCIALES
SPECIAL INSTRUCTIONS

K6A1K7

MATERIAL + SAVINGS

CUSTOMER P.S.T. : *6122-5207

INDALEX G.S.T. REG NO: R136834041

PROJ:

Required Date:
080725

N° DU CLIENT CUST NO.	TPS. G.S.T.	TAXE DE VENTE PROV. PROV SALES TAX	N° DE COMMANDE CUST. ORDER N.	DATE DE COMMANDE ORDER DATE	NOTRE DATE DE COMM. OUR ORDER DATE	CONDITIONS TERMS
201355 XXXXXX			6671	8/07/04	8/07/04	

VENDEUR SALESMAN	EXPÉDIÉ PAR SHIP VIA	PAYE: PPD.	PERC. COL.	G.A.D. / PAI. G.O.D. / F.O.B.	EN DALLOTS BINNED AND TAPEO	CARTONNÉ & INTERCALÉ: CARTONED & INTERLEAVED
51		<input checked="" type="checkbox"/>				

N° ITEM ITEM NO.	COMMANDE / ORDERED POIDS WEIGHT	N° DE MATRICE INDALEX DIE NO.	DESCRIPTION DU CLIENT CUSTOMER DESCRIPTION	ALLIAGE ET TREMPAGE ALLOY AND TEMPER	LONGUEUR LENGTH	PRIX UNITAIRE UNIT PRICE
			F EXTRUDE ONLY			
✓ 1 499		167	DUE=2008/07/25 07-25 MS 18867 D2500-3-100 6061 T6 D2500-3 BUNDLE= 839254 839264	2540		

We hereby certify that the material supplied meets the
chemical properties as published by the Aluminum
Association, and requirements of our Quality procedures

DATE DE L'EXPÉDITION DATE SHIPPED	ENVYÉ PAR SHIPPED VIA	OTTAWA 25 JUIL.
8/07/24		

COMMANDÉ / ORDERED POIDS WEIGHT	CETTE EXPÉDITION BALLOTS BDLES	THIS SHIPMENT POIDS WEIGHT	PCES / PCS.	MONTANT AMOUNT
			2 620 210	POIDS EN KGS

00

EXEMPLAIRE DE LA COMPTABILITÉ
ACCOUNTING COPY

FEUILLE D'EMPAQUETAGE
PACKING SLIP



325 rue Avro
Pointe-Claire QC H9R 5W3

Téléphone (514) 697-5120
Fac-simile (514) 694-8310

Rapport des propriétés mécaniques Mechanical Properties Test Report

Client / Customer : DART AEROSPACE LTD

Adresse / Address : 1270 ABERDEEN STREET
HAWKESBURY ONT,
K6A 1K7

commande Indalex / Indalex order # : 8070705

bon de commande / Purchase order # : 6671

de matrice / Die # : MS 18867 Description : D2500-3

Alliage & trempage / Alloy & temper : 6061 T6

Contrôle / Control # : 79891-2

Coulée / Cast # : 43820

	Min.requis Min.required	Résultat actuel Actual results
Tension ultime Ultimate stress (psi)	38 000	40 534
Contrainte élastique Yield stress (psi)	35 000	37 653
% élongation dans 2" % elongation in 2"	8	12
Dureté Rockwell E (hre) Rockwell E Hardness (hre)	88 @ 100	91

Composition chimique typique / Typical chemical composition :

	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti
6063	0,20 - 0,60	0,35 Max	0,10 Max	0,10 Max	0,45 - 0,90	0,10 Max	0,10 Max	0,10 Max
6005	0,60 - 0,90	0,35 Max	0,10 Max	0,10 Max	0,40 - 0,60	0,10 Max	0,10 Max	0,10 Max
6005A	0,68 - 0,72	0,15 - 0,27	0,08 - 0,12	0,20 - 0,24	0,48 - 0,52	0,03 Max	0,05 Max	0,03 Max
6061	0,40 - 0,80	0,70 Max	0,15 - 0,40	0,15 Max	0,80 - 1,20	0,04 - 0,35	0,25 Max	0,15 Max
6351	0,7 - 1,3	0,5 Max	0,10 Max	0,40 - 0,80	0,40 - 0,80	--	0,20 Max	0,20 Max

Nous certifions que le matériel fourni rencontre les exigences chimiques telles qu'annoncées par la norme ASTM B-221 excepté pour la section 8.2 (nombre de spécimen) et AMS QQA 200/8 excepté pour la section 4.2.3.1 (nombre de spécimen) qui sont déterminés par les exigences du client.

We hereby certify that the material supplied meets the chemical properties as published by the ASTM B-221 except for section 8.2 (number of specimen) and AMS QQA 200/8 except for section 4.2.3.1 (number of specimen) which is determined by customer requirement.

Sincèrement vôtre,
Yours truly,

date : 2008-07-18

Patrick-Martin Bader
Technicien de la qualité
Quality technician

Indalex Limited